

## **TITLE 14--AERONAUTICS AND SPACE**

### **CHAPTER I--FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION**

#### **PART 139--CERTIFICATION AND OPERATIONS: LAND AIRPORTS SERVING CERTAIN AIR CARRIERS**

##### **Subpart A--General**

###### **Sec. 139.1 Applicability.**

This part prescribes rules governing the certification and operation of land airports which serve any scheduled or unscheduled passenger operation of an air carrier that is conducted with an aircraft having a seating capacity of more than 30 passengers. This part does not apply to airports at which air carrier passenger operations are conducted only by reason of the airport being designated as an alternate airport.

###### **Sec. 139.3 Definitions.**

The following are definitions of terms as used in this part:

AFFF means aqueous film forming foam agent.

Air carrier means a person who holds or who is required to hold an air carrier operating certificate issued under this chapter while operating aircraft having a seating capacity of more than 30 passengers.

Air carrier aircraft means an aircraft with a seating capacity of more than 30 passengers which is being operated by an air carrier.

Air carrier operation means the takeoff or landing of an air carrier aircraft and includes the period of time from 15 minutes before and until 15 minutes after the takeoff or landing.

Airport means an area of land or other hard surface, excluding water, that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

Airport operating certificate means a certificate, issued under this part, for operation of an airport serving scheduled operations of air carriers.

Average daily departures means the average number of scheduled departures per day of air carrier aircraft computed on the basis of the busiest 3 consecutive months of the immediately preceding 12 calendar months; except that if the average daily departures are

expected to increase, then "average daily departures" may be determined by planned rather than current activity in a manner acceptable to the Administrator.

Certificate holder means the holder of an airport operating certificate or a limited airport operating certificate, except that as used in subpart D "certificate holder" does not mean the holder of a limited airport operating certificate if its airport certification specifications, or this part, do not require compliance with the section in which it is used.

Heliport means an airport or an area of an airport used or intended to be used for the landing and takeoff of helicopters.

Index means an airport ranking according to the type and quantity of aircraft rescue and firefighting equipment and agent required, determined by the length and frequency of air carrier aircraft served by the airport, as provided in subpart D of this part.

Limited airport operating certificate means a certificate, issued under this part, for the operation of an airport serving unscheduled operations of air carriers.

Movement area means the runways, taxiways, and other areas of an airport which are used for taxiing or hover taxiing, air taxiing, takeoff, and landing of aircraft, exclusive of loading ramps and aircraft parking areas.

Regional Airports Division Manager means the airports division manager for the FAA region in which the airport is located.

Safety area means a designated area abutting the edges of a runway or taxiway intended to reduce the risk of damage to an aircraft inadvertently leaving the runway or taxiway.

Wildlife hazard means a potential for a damaging aircraft collision with wildlife on or near an airport. As used in this part, "wildlife" includes domestic animals while out of the control of their owners.

Sec. 139.5 Standards and procedures for compliance with the certification and operations requirements of this part.

Certain requirements prescribed by subparts C and D of this part must be complied with in a manner acceptable to the Administrator. FAA Advisory Circulars contain standards and procedures that are acceptable to the Administrator for compliance with subparts C and D. Some of these advisory circulars are referenced in specific sections of this part. The standards and procedures in them, or other standards and procedures approved by the Administrator, may be used to comply with those sections.

## **Subpart B--Certification**

Sec. 139.101 Certification requirements: General.

- a. No person may operate a land airport in any State of the United States, the District of Columbia, or any territory or possession of the United States, serving any scheduled passenger operation of an air carrier operating an aircraft having a seating capacity of more than 30 passengers without an airport operating certificate, or in violation of that certificate, the applicable provisions of this part, or the approved airport certification manual for that airport.
- b. Unless otherwise authorized by the Administrator, no person may operate a land airport in any State of the United States, the District of Columbia, or any territory or possession of the United States, serving any unscheduled passenger operation of an air carrier operating an aircraft having a seating capacity of more than 30 passengers without a limited airport operating certificate, or in violation of that certificate, the applicable provisions of this part, or the approved airport specifications for that airport.

Sec. 139.103 Application for certificate.

- a. Each applicant for an airport operating certificate or a limited airport operating certificate must submit an application, in a form and in the manner prescribed by the Administrator, to the Regional Airports Division Manager.
- b. The application must be accompanied by two copies of an airport certification manual or airport certification specifications, as appropriate, prepared in accordance with subpart C of this part.

Sec. 139.105 Inspection authority.

Each applicant for an airport operating certificate or a limited airport operating certificate must allow the Administrator to make any inspections, including unannounced inspections, or tests to determine compliance with--

- a. The Federal Aviation Act of 1958, as amended; and
- b. The requirements of this part.

Sec. 139.107 Issuance of certificate.

- a. An applicant for an airport operating certificate is entitled to a certificate if--
  1. The provisions of Sec. 139.103 of this subpart are met;
  2. The Administrator, after investigation, finds that the applicant is properly and adequately equipped and able to provide a safe airport operating environment in accordance with--
    - i. Subpart D of this part, and

- ii. Any limitations which the Administrator finds necessary in the public interest; and
- 3. The Administrator approves the airport certification manual.
- b. An applicant for a limited airport operating certificate is entitled to a certificate if--
  - 
  - 1. The provisions of Sec. 139.103 of this subpart are met;
  - 2. The Administrator, after investigation, finds that the applicant is properly and adequately equipped and able to provide a safe airport operating environment in accordance with--
    - i. The provisions of subpart D listed in Sec. 139.213(a) of this part, and
    - ii. Any other provisions of this part and any limitations which the Administrator finds necessary in the public interest; and
  - 3. The Administrator approves the airport certification specifications.

Sec. 139.109 Duration of certificate.

An airport operating certificate or a limited airport operating certificate issued under this part is effective until it is surrendered by the certificate holder or is suspended or revoked by the Administrator.

Sec. 139.111 Exemptions.

- a. An applicant or a certificate holder may petition the Administrator under Sec. 11.25, Petitions for Rule Making or Exemptions, of this chapter for an exemption from any requirement of this part.
- b. An applicant or a certificate holder, enplaning annually less than one-quarter of 1 percent of the total number of passengers enplaned at all air carrier airports, may petition the Administrator under Sec. 11.25, Petitions for Rule Making or Exemptions, of this chapter for an exemption from all or part of the rescue and firefighting equipment requirements of this part on the grounds that compliance with those requirements is, or would be, unreasonably costly, burdensome, or impractical.
- c. Each petition filed under this section must be submitted in duplicate to the Regional Airports Division Manager.

**Subpart C--Airport Certification Manual and Airport Certification Specifications**

Sec. 139.201 Airport operating certificate: Airport certification manual.

- a. An applicant for an airport operating certificate must prepare, and submit with an application, an airport certification manual for approval by the Administrator.

Only those items addressing subjects required for certification under this part shall be included in the airport certification manual.

- b. Except as provided in paragraph (c) of this section, each certificate holder shall comply with an approved airport certification manual that meets the requirements of Secs. 139.203 and 139.205.
- c. A certificate holder with an approved airport operations manual on December 31, 1987, may use the manual in lieu of the manual required by paragraph (b) of this section until December 31, 1988. Until the certificate holder has an approved airport certification manual, it shall comply with Sec. 139.207 as if that section applied to its airport operations manual.

Sec. 139.205 Contents of airport certification manual.

- a. Each airport certification manual required by this part shall include operating procedures, facilities and equipment descriptions, responsibility assignments, and any other information needed by personnel concerned with operating the airport in order to comply with--
  - 1. The provisions of subpart D of this part; and
  - 2. Any limitations which the Administrator finds necessary in the public interest.
- b. In complying with paragraph (a) of this section, the airport certification manual must include at least the following elements:
  - 1. Lines of succession of airport operational responsibility.
  - 2. Each current exemption issued to the airport from the requirements of this part.
  - 3. Any limitations imposed by the Administrator.
  - 4. A grid map or other means of identifying locations and terrain features on and around the airport which are significant to emergency operations.
  - 5. The system of runway and taxiway identification.
  - 6. The location of each obstruction required to be lighted or marked within the airport's area of authority.
  - 7. A description of each movement area available for air carriers and its safety areas and each road described in Sec. 139.319(k) that serves it.
  - 8. Procedures for avoidance of interruption or failure during construction work of utilities serving facilities or nav aids which support air carrier operations.
  - 9. Procedures for maintaining the paved areas as required by Sec. 139.305.
  - 10. Procedures for maintaining the unpaved areas as required by Sec. 139.307.
  - 11. Procedures for maintaining the safety areas as required by Sec. 139.309.
  - 12. A description of, and procedures for maintaining, the marking and lighting systems as required by Sec. 139.311.
  - 13. A snow and ice control plan as required by Sec. 139.313.
  - 14. A description of the facilities, equipment, personnel, and procedures for meeting the rescue and firefighting requirements in Secs. 139.317 and 139.319.

15. Procedures for complying with the requirements of Sec. 139.321 relating to hazardous substances and materials.
16. A description of, and procedures for maintaining, the traffic and wind direction indicators required by Sec. 139.323.
17. An emergency plan as required by Sec. 139.325.
18. Procedures for conducting the self-inspection program as required by Sec. 139.327.
19. Procedures for controlling ground vehicles as required by Sec. 139.329.
20. Procedures for obstruction removal, marking, or lighting as required by Sec. 139.331.
21. Procedures for protection of nav aids as required by Sec. 139.333.
22. A description of public protection as required by Sec. 139.335.
23. A wildlife hazard management plan as required by Sec. 139.337.
24. Procedures for airport condition reporting as required by Sec. 139.339.
25. Procedures for identifying, marking, and reporting construction and other unserviceable areas as required by Sec. 139.341.
26. Any other item which the Administrator finds is necessary in the public interest.

Sec. 139.207 Maintenance of airport certification manual.

Each holder of an airport operating certificate shall--

- a. Keep its airport certification manual current at all times;
- b. Maintain at least one complete and current copy of its approved airport certification manual on the airport;
- c. Furnish the applicable portions of the approved airport certification manual to the airport personnel responsible for their implementation;
- d. Make the copy required by paragraph (b) of this section available for inspection by the Administrator upon request; and
- e. Provide the Administrator with one complete and current copy required by paragraph (b) of this section.

Sec. 139.209 Limited airport operating certificate: Airport certification specifications.

- a. An applicant for a limited airport operating certificate must prepare, and submit with an application, airport certification specifications for approval by the Administrator. Only those items addressing subjects required for certification under this part shall be included in the airport certification specifications.
- b. Except as provided in paragraph (c) of this section, each certificate holder shall comply with the approved airport certification specifications that meet the requirements of Secs. 139.211 and 139.213.
- c. A certificate holder with an approved airport operations specification on December 31, 1987, may use those specifications in lieu of the specifications

required by paragraph (b) of this section until December 31, 1988. Until the certificate holder has approved airport certification specifications, it shall comply with Sec. 139.215 as if that section applied to its airport operations specifications.

Sec. 139.211 Preparation of airport certification specifications.

- a. Each airport certification specifications required by this part shall--
  - 1. Be typewritten and signed by the airport operator;
  - 2. Be in a form that is easy to revise;
  - 3. Have the date of initial approval or approval of the latest revision on each page or item in the specifications and include a page revision log; and
  - 4. Be organized in a manner helpful to the preparation, review, and approval processes.
- b. FAA Advisory Circulars in the 139 series contain standards and procedures for the development of airport certification specifications which are acceptable to the Administrator.

Sec. 139.213 Contents of airport certification specifications.

- a. The airport certification specifications required by this part shall include operating procedures, facilities and equipment descriptions, responsibility assignments, and any other information needed by personnel concerned with operating the airport in order to comply with--
  - 1. The following provisions of subpart D of this part:
    - i. Section 139.301 Inspection authority.
    - ii. Section 139.303 Personnel.
    - iii. Section 139.305 Paved areas.
    - iv. Section 139.307 Unpaved areas.
    - v. Section 139.309 Safety areas.
    - vi. Section 139.311 Marking and lighting.
    - vii. Section 139.339 Airport condition reporting.
  - 2. Any other provisions of subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest.
- b. In complying with paragraph (a) of this section, the airport certification specifications shall include at least the following elements:
  - 1. Lines of succession of airport operational responsibility.
  - 2. Each current exemption issued to the airport from the requirements of this part.
  - 3. Any limitations imposed by the Administrator.
  - 4. The system of runway and taxiway identification.
  - 5. The location of each obstruction required to be lighted or marked within the airport's area of authority.
  - 6. A description of each movement area available for air carriers and its safety areas.

7. Procedures for maintaining the paved areas as required by Sec. 139.305.
8. Procedures for maintaining the unpaved areas as required by Sec. 139.307.
9. Procedures for maintaining the safety areas as required by Sec. 139.309.
10. A description of, and procedures for maintaining, the marking and lighting systems as required by Sec. 139.311.
11. A description of the facilities, equipment, personnel, and procedures for emergency response to aircraft rescue and firefighting needs.
12. Procedures for safety in storing and handling of hazardous substances and materials.
13. A description of, and procedures for maintaining, any traffic and wind direction indicators on the airport.
14. A description of the procedures used for conducting self-inspections of the airport.
15. Procedures and responsibilities for airport condition reporting as required by Sec. 139.339.
16. Procedures for compliance with any other provisions of subpart D of this part, and any limitations, which the Administrator finds necessary in the public interest.

Sec. 139.215 Maintenance of airport certification specifications.

Each holder of a limited airport operating certificate shall--

- a. Keep its airport certification specifications current at all times;
- b. Maintain at least one complete and current copy of its approved airport certification specifications on the airport;
- c. Furnish the applicable portions of the approved airport certification specifications to the airport personnel responsible for their implementation;
- d. Make the copy required by paragraph (b) of this section available for inspection by the Administrator upon request; and
- e. Provide the Administrator with one complete and current copy required by paragraph (b) of this section.

Sec. 139.217 Amendment of airport certification manual or airport certification specifications.

- a. The Regional Airports Division Manager may amend any airport certification manual or any airport certification specifications approved under this part, either--
  1. Upon application by the certification holder; or
  2. On the Regional Airports Division Manager's own initiative if the Regional Airports Division Manager determines that safety in air transportation or air commerce and the public interest require the amendment.



- b. An applicant for an amendment to its airport certification manual or its airport certification specifications shall file its application with the Regional Airports Division Manager at least 30 days before the proposed effective date of the amendment, unless a shorter filing period is allowed by that office.
- c. At any time within 30 days after receiving a notice of refusal to approve the application for amendment, the certificate holder may petition the Administrator to reconsider the refusal to amend.
- d. In the case of amendments initiated by the Regional Airports Division Manager, the office notifies the certificate holder of the proposed amendment, in writing, fixing a reasonable period (but not less than 7 days) within which the certificate holder may submit written information, views, and arguments on the amendment. After considering all relevant material presented, the Regional Airports Division Manager notifies the certificate holder of any amendment adopted or rescinds the notice. The amendment becomes effective not less than 30 days after the certificate holder receives notice of it, except that prior to the effective date the certificate holder may petition the Administrator to reconsider the amendment, in which case its effective date is stayed pending a decision by the Administrator.
- e. Notwithstanding the provisions of paragraph (d) of this section, if the Regional Airports Division Manager finds that there is an emergency requiring immediate action with respect to safety in air transportation or air commerce that makes the procedures in this paragraph impractical or contrary to the public interest, the Regional Airports Division Manager may issue an amendment, effective without stay on the date the certificate holder receives notice of it. In such a case, the Regional Airports Division Manager incorporates the finding of the emergency, and a brief statement of the reasons for the finding, in the notice of the amendment. Within 30 days after the issuance of such an emergency amendment, the certificate holder may petition the Administrator to reconsider either the finding of an emergency or the amendment itself or both. This petition does not automatically stay the effectiveness of the emergency amendment.

#### **Subpart D--Operations**

##### **Sec. 139.301 Inspection authority.**

Each certificate holder shall allow the Administrator to make any inspections, including unannounced inspections, or tests to determine compliance with this part.

##### **Sec. 139.303 Personnel.**

Each certificate holder shall maintain sufficient qualified personnel to comply with the requirements of its airport certification manual or airport certification specifications and the applicable rules of this part.

Sec. 139.305 Paved areas.

- a. Each certificate holder shall maintain, and promptly repair the pavement of, each runway, taxiway, loading ramp, and parking area on the airport which is available for air carrier use as follows:
  - 1. The pavement edges shall not exceed 3 inches difference in elevation between abutting pavement sections and between full strength pavement and abutting shoulders.
  - 2. The pavement shall have no hole exceeding 3 inches in depth nor any hole the slope of which from any point in the hole to the nearest point at the lip of the hole is 45 degrees or greater as measured from the pavement surface plane, unless, in either case, the entire area of the hole can be covered by a 5-inch diameter circle.
  - 3. The pavement shall be free of cracks and surface variations which could impair directional control of air carrier aircraft.
  - 4. Except as provided in paragraph (b) of this section, mud, dirt, sand, loose aggregate, debris, foreign objects, rubber deposits, and other contaminants shall be removed promptly and as completely as practicable.
  - 5. Except as provided in paragraph (b) of this section, any chemical solvent that is used to clean any pavement area shall be removed as soon as possible, consistent with the instructions of the manufacturer of the solvent.
  - 6. The pavement shall be sufficiently drained and free of depressions to prevent ponding that obscures markings or impairs safe aircraft operations.
- b. Paragraphs (a)(4) and (a)(5) of this section do not apply to snow and ice accumulations and their control, including the associated use of materials such as sand and deicing solutions.
- c. FAA Advisory Circulars in the 150 series contain standards and procedures for the maintenance and configuration of paved areas which are acceptable to the Administrator.

Sec. 139.307 Unpaved areas.

- a. Each certificate holder shall maintain and promptly repair the surface of each gravel, turf, or other unpaved runway, taxiway, or loading ramp and parking area on the airport which is available for air carrier use as follows:
  - 1. No slope from the edge of the full-strength surfaces downward to the existing terrain shall be steeper than 2:1.
  - 2. The full-strength surfaces shall have adequate crown or grade to assure sufficient drainage to prevent ponding.
  - 3. The full-strength surfaces shall be adequately compacted and sufficiently stable to prevent rutting by aircraft, or the loosening or buildup of surface material which could impair directional control of aircraft or drainage.

4. The full-strength surfaces must have no holes or depressions which exceed 3 inches in depth and are of a breadth capable of impairing directional control or causing damage to an aircraft.
5. Debris and foreign objects shall be promptly removed from the surface.
- b. Standards and procedures for the maintenance and configuration of unpaved full-strength surfaces shall be included in the airport certification manual or the airport certification specifications, as appropriate, for compliance with this section.

Sec. 139.309 Safety areas.

- a. To the extent practicable, each certificate holder shall provide and maintain for each runway and taxiway which is available for air carrier use--
  1. If the runway or taxiway had a safety area on December 31, 1987, and if no reconstruction or significant expansion of the runway or taxiway was begun on or after January 1, 1988, a safety area of at least the dimensions that existed on December 31, 1987; or
  2. If construction, reconstruction, or significant expansion of the runway or taxiway began on or after January 1, 1988, a safety area which conforms to the dimensions acceptable to the Administrator at the time construction, reconstruction, or expansion began.
- b. Each certificate holder shall maintain its safety areas as follows:
  1. Each safety area shall be cleared and graded, and have no potentially hazardous ruts, humps, depressions, or other surface variations.
  2. Each safety area shall be drained by grading or storm sewers to prevent water accumulation.
  3. Each safety area shall be capable under dry conditions of supporting snow removal equipment, and aircraft rescue and firefighting equipment, and supporting the occasional passage of aircraft without causing major damage to the aircraft.
  4. No object may be located in any safety area, except for objects that need to be located in a safety area because of their function. These objects shall be constructed, to the extent practical, on frangibly mounted structures of the lowest practical height with the frangible point no higher than 3 inches above grade.
- c. FAA Advisory Circulars in the 150 series contain standards and procedures for the configuration and maintenance of safety areas acceptable to the Administrator.

Sec. 139.311 Marking and lighting

- a. Each certificate holder shall provide and maintain at least the following marking systems for air carrier operations on the airport:
  1. Runway markings meeting the specifications for the approach with the lowest minimums authorized for each runway.
  2. Taxiway centerline and edge markings.

3. Signs identifying taxiing routes on the movement area.
4. Runway holding position markings and signs.
5. ILS critical area markings and signs.
- b. Each certificate holder shall provide and maintain, when the airport is open during hours of darkness or during conditions below VFR minimums, at least the following lighting systems for air carrier operations on the airport:
  1. Runway lighting meeting the specifications for the approach with the lowest minimums authorized for each runway.
  2. One of the following taxiway lighting systems:
    - i. Centerline lights.
    - ii. Centerline reflectors.
    - iii. Edge lights.
    - iv. Edge reflectors.
  3. An airport beacon.
  4. Approach lighting meeting the specifications for the approach with the lowest minimums authorized for each runway, unless otherwise provided and maintained by the FAA or another agency.
  5. Obstruction marking and lighting, as appropriate, on each object within its authority which constitutes an obstruction under part 77 of this chapter. However, this lighting and marking is not required if it is determined to be unnecessary by an FAA aeronautical study.
- c. Each certificate holder shall properly maintain each marking or lighting system installed on the airport which is owned by the certificate holder. As used in this section, to ``properly maintain" includes: To clean, replace, or repair any faded, missing, or nonfunctional item of lighting; to keep each item unobscured and clearly visible; and to ensure that each item provides an accurate reference to the user.
- d. Each certificate holder shall ensure that all lighting on the airport, including that for aprons, vehicle parking areas, roadways, fuel storage areas, and buildings, is adequately adjusted or shielded to prevent interference with air traffic control and aircraft operations.
- e. FAA Advisory Circulars in the 150 series contain standards and procedures for equipment, material, installation, and maintenance of light systems and marking listed in this section which are acceptable to the Administrator.
- f. Notwithstanding paragraph (a) of this section, a certificate holder is not required to provide the identified signs in paragraph (a)(3) of this section until January 1, 1995. Each certificate holder shall maintain each marking system that meets paragraph (a)(3) of this section.

Sec. 139.313 Snow and ice control.

- a. Each certificate holder whose airport is located where snow and icing conditions regularly occur shall prepare, maintain, and carry out a snow and ice control plan.
- b. The snow and ice control plan required by this section shall include instructions and procedures for--

1. Prompt removal or control, as completely as practical, of snow, ice, and slush on each movement area;
  2. Positioning snow off of movement area surfaces so that all air carrier aircraft propellers, engine pods, rotors, and wingtips will clear any snowdrift and snowbank as the aircraft's landing gear traverses any full strength portion of the movement area;
  3. Selection and application of approved materials for snow and ice control to ensure that they adhere to snow and ice sufficiently to minimize engine ingestion;
  4. Timely commencement of snow and ice control operations; and
  5. Prompt notification, in accordance with Sec. 139.339, of all air carriers using the airport when any portion of the movement area normally available to them is less than satisfactorily cleared for safe operation by their aircraft.
- c. FAA Advisory Circulars in the 150 series contain standards for snow and ice control equipment, materials, and procedures for snow and ice control which are acceptable to the Administrator.

Sec. 139.315 Aircraft rescue and firefighting: Index determination.

- a. An Index is required by paragraph (c) of this section for each certificate holder. The Index is determined by a combination of--
  1. The length of air carrier aircraft expressed in groups; and
  2. Average daily departures of air carrier aircraft.
- b. For the purpose of Index determination, air carrier aircraft lengths are grouped as follows:
  1. Index A includes aircraft less than 90 feet in length.
  2. Index B includes aircraft at least 90 feet but less than 126 feet in length.
  3. Index C includes aircraft at least 126 feet but less than 159 feet in length.
  4. Index D includes aircraft at least 159 feet but less than 200 feet in length.
  5. Index E includes aircraft at least 200 feet in length.
- c. Except as provided in Sec. 139.319(c), the Index required by Sec. 139.319 is determined as follows:
  1. If there are five or more average daily departures of air carrier aircraft in a single Index group serving that airport, the longest Index group with an average of 5 or more daily departures is the Index required for the airport.
  2. If there are less than five average daily departures of air carrier aircraft in a single Index group serving that airport, the next lower Index from the longest Index group with air carrier aircraft in it is the Index required for the airport. The minimum designated Index shall be Index A.

Sec. 139.317 Aircraft rescue and firefighting: Equipment and agents.

The following rescue and firefighting equipment and agents are the minimum required for the Indexes referred to in Sec. 139.315:

- a. Index A: One vehicle carrying at least--
  1. 500 pounds of sodium-based dry chemical or halon 1211; or
  2. 450 pounds of potassium-based dry chemical and water with a commensurate quantity of AFFF to total 100 gallons, for simultaneous dry chemical and AFFF foam application.
- b. Index B: Either of the following:
  1. One vehicle carrying at least 500 pounds of sodium-based dry chemical or halon 1211, and 1,500 gallons of water, and the commensurate quantity of AFFF for foam production.
  2. Two vehicles--
    - i. One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and
    - ii. One vehicle carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by both vehicles is at least 1,500 gallons.
- c. Index C: Either of the following:
  1. Three vehicles--
    - i. One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and
    - ii. Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 3,000 gallons.
  2. Two vehicles--
    - i. One vehicle carrying the extinguishing agents as specified in paragraph (b)(1) of this section; and
    - ii. One vehicle carrying water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by both vehicles is at least 3,000 gallons.
- d. Index D: Three vehicles--
  1. One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and
  2. Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 4,000 gallons.
- e. Index E: Three vehicles--
  1. One vehicle carrying the extinguishing agents as specified in paragraph (a)(1) or (2) of this section; and
  2. Two vehicles carrying an amount of water and the commensurate quantity of AFFF so that the total quantity of water for foam production carried by all three vehicles is at least 6,000 gallons.
- f. Notwithstanding the provisions of paragraphs (a) through (e) of this section, any certificate holder whose vehicles met the requirements of this part for quantity and type of extinguishing agent on December 31, 1987, may comply with the

Index requirements of this section by carrying extinguishing agents to the full capacity of those vehicles. Whenever any of those vehicles is replaced or rehabilitated, the capacity of the replacement or rehabilitated vehicle shall be sufficient to comply with the requirements of the required Index.

- g. Foam discharge capacity. Each aircraft rescue and firefighting vehicle used to comply with Index B, C, D, or E requirements with a capacity of at least 500 gallons of water for foam production shall be equipped with a turret. Vehicle turret discharge capacity shall be as follows:
  - 1. Each vehicle with a minimum rated vehicle water tank capacity of at least 500 gallons but less than 2,000 gallons shall have a turret discharge rate of at least 500 gallons per minute but not more than 1,000 gallons per minute.
  - 2. Each vehicle with a minimum rated vehicle water tank capacity of at least 2,000 gallons shall have a turret discharge rate of at least 600 gallons per minute but not more than 1,200 gallons per minute.
  - 3. Notwithstanding the requirements of paragraph (g) of this section, any certificate holder whose aircraft rescue and firefighting vehicles are not equipped with turrets or do not have the discharge capacity required in this section, but otherwise met the requirements of this part on December 31, 1987, need not comply with paragraph (g) of this section for a particular vehicle until that vehicle is replaced or rehabilitated.
- h. Dry chemical and halon 1211 discharge capacity. Each aircraft rescue and firefighting vehicle which is required to carry dry chemical or halon 1211 for compliance with the index requirements of this section must meet one of the following minimum discharge rates for the equipment installed:
  - 1. Dry chemical or halon 1211 through a hand line, 5 pounds per second.
  - 2. Dry chemical or halon 1211 through a turret, 16 pounds per second.
- i. Extinguishing agent substitutions. The following extinguishing agent substitutions may be made:
  - 1. Protein or fluoroprotein foam concentrates may be substituted for AFFF. When either of these substitutions is selected, the volume of water to be carried for the substitute foam production shall be calculated by multiplying the volume of water required for AFFF by the factor 1.5.
  - 2. Sodium- or potassium-based dry chemical or halon 1211 may be substituted for AFFF. Up to 30 percent of the amount of water specified for AFFF production may be replaced by dry chemical or halon 1211, except that for airports where such extreme climatic conditions exist that water is either unmanageable or unobtainable, as in arctic or desert regions, up to 100 percent of the required water may be replaced by dry chemical or halon 1211. When this substitution is selected, 12.7 pounds of dry chemical or halon 1211 shall be substituted for each gallon of water used for AFFF foam production.
  - 3. Sodium- or potassium-based dry chemical or halon 1211 may be substituted for protein or fluoroprotein foam. When this substitution is selected, 8.4 pounds of dry chemical or halon 1211 shall be substituted for one gallon of water for protein or fluoroprotein foam production.

4. AFFF may be substituted for dry chemical or halon 1211. For airports where meteorological conditions, such as consistently high winds and precipitation, would frequently prevent the effective use of dry chemical or halon 1211, up to 50 percent of these agents may be replaced by water for AFFF production. When this substitution is selected, one gallon of water for foam production with the commensurate quantity of AFFF shall be substituted for 12.7 pounds of dry chemical or halon 1211.
5. Potassium-based dry chemical may be substituted for sodium-based dry chemical. Where 500 pounds of sodium-based dry chemical is specified, 450 pounds of potassium-based dry chemical may be substituted.
6. Other extinguishing agent substitutions acceptable to the Administrator may be made in amounts that provide equivalent firefighting capability.
- j. In addition to the quantity of water required, each vehicle required to carry AFFF shall carry AFFF in an appropriate amount to mix with twice the water required to be carried by the vehicle.
- k. FAA Advisory Circulars in the 150 series contain standards and procedures for AFFF equipment and agents which are acceptable to the Administrator.

Requested Section was not found for specified year (2001). Please verify the CFR citation you entered.

Sec. 139.321 Handling and storing of hazardous substances and materials.

- a. Each certificate holder which acts as a cargo handling agent shall establish and maintain procedures for the protection of persons and property on the airport during the handling and storing of any material regulated by the Hazardous Materials Regulations (49 CFR part 171, et seq.), that is, or is intended to be, transported by air. These procedures shall provide for at least the following:
  1. Designated personnel to receive and handle hazardous substances and materials.
  2. Assurance from the shipper that the cargo can be handled safely, including any special handling procedures required for safety.
  3. Special areas for storage of hazardous materials while on the airport.
- b. Each certificate holder shall establish and maintain standards acceptable to the Administrator for protecting against fire and explosions in storing, dispensing, and otherwise handling fuel, lubricants, and oxygen (other than articles and materials that are, or are intended to be, aircraft cargo) on the airport. These standards shall cover facilities, procedures, and personnel training and shall address at least the following:
  1. Grounding and bonding.
  2. Public protection.
  3. Control of access to storage areas.
  4. Fire safety in fuel farm and storage areas.
  5. Fire safety in mobile fuelers, fueling pits, and fueling cabinets.



6. After January 1, 1989, training of fueling personnel in fire safety in accordance with paragraph (e) of this section.
7. The fire code of the public body having jurisdiction over the airport.
- c. Each certificate holder shall, as a fueling agent, comply with and, except as provided in paragraph (h) of this section, require all other fueling agents operating on the airport to comply with the standards established under paragraph (b) of this section and shall perform reasonable surveillance of all fueling activities on the airport with respect to those standards.
- d. Each certificate holder shall inspect the physical facilities of each airport tenant fueling agent at least once every 3 months for compliance with paragraph (b) of this section and maintain a record of that inspection for at least 12 months. The certificate holder may use an independent organization to perform this inspection if--
  1. It is acceptable by the Administrator; and
  2. It prepares a record of its inspection sufficiently detailed to assure the certificate holder and the FAA that the inspection is adequate.
- e. The training required in paragraph (b)(6) of this section shall include at least the following:
  1. At least one supervisor with each fueling agent shall have completed an aviation fuel training course in fire safety which is acceptable to the Administrator.
  2. All other employees who fuel aircraft, accept fuel shipments, or otherwise handle fuel shall receive at least on-the-job training in fire safety from the supervisor trained in accordance with paragraph (e)(1) of this section.
- f. Each certificate holder shall obtain certification once a year from each airport tenant fueling agent that the training required by paragraph (e) of this section has been accomplished.
- g. Unless otherwise authorized by the Administrator, each certificate holder shall require each tenant fueling agent to take immediate corrective action whenever the certificate holder becomes aware of noncompliance with a standard required by paragraph (b) of this section. The certificate holder shall notify the appropriate FAA Regional Airports Division Manager immediately when noncompliance is discovered and corrective action cannot be accomplished within a reasonable period of time.
- h. A certificate holder need not require an air carrier operating under part 121 or part 135 of this chapter to comply with the standards required by this section.
- i. FAA Advisory Circulars in the 150 Series contain standards and procedures for the handling and storage of hazardous substances and materials which are acceptable to the Administrator.

Sec. 139.323 Traffic and wind direction indicators.

Each certificate holder shall provide the following on its airport:

- a. A wind cone that provides surface wind direction information visually to pilots. For each airport in a Class B airspace area, supplemental wind cones must be installed at each runway end or at least at one point visible to the pilot while on final approach and prior to takeoff. If the airport is open for air carrier operations during hours of darkness, the wind direction indicators must be lighted.
- b. For airports serving any air carrier operation when there is no control tower operating, a segmented circle around one wind cone and a landing strip and traffic pattern indicator for each runway with a right-hand traffic pattern.

Sec. 139.325 Airport emergency plan.

- a. Each certificate holder shall develop and maintain an airport emergency plan designed to minimize the possibility and extent of personal injury and property damage on the airport in an emergency. The plan must include--
  - 1. Procedures for prompt response to all of the emergencies listed in paragraph (b) of this section, including a communications network; and
  - 2. Sufficient detail to provide adequate guidance to each person who must implement it.
- b. The plan required by this section must contain instructions for response to--
  - 1. Aircraft incidents and accidents;
  - 2. Bomb incidents, including designated parking areas for the aircraft involved;
  - 3. Structural fires;
  - 4. Natural disaster;
  - 5. Radiological incidents;
  - 6. Sabotage, hijack incidents, and other unlawful interference with operations;
  - 7. Failure of power for movement area lighting; and
  - 8. Water rescue situations.
- c. The plan required by this section must address or include--
  - 1. To the extent practicable, provisions for medical services including transportation and medical assistance for the maximum number of persons that can be carried on the largest air carrier aircraft that the airport reasonably can be expected to serve;
  - 2. The name, location, telephone number, and emergency capability of each hospital and other medical facility, and the business address and telephone number of medical personnel on the airport or in the communities it serves, agreeing to provide medical assistance or transportation;
  - 3. The name, location, and telephone number of each rescue squad, ambulance service, military installation, and government agency on the airport or in the communities it serves, that agrees to provide medical assistance or transportation;
  - 4. An inventory of surface vehicles and aircraft that the facilities, agencies, and personnel included in the plan under paragraphs (c)(2) and (c)(3) of

- this section will provide to transport injured and deceased persons to locations on the airport and in the communities it serves;
5. Each hangar or other building on the airport or in the communities it serves that will be used to accommodate uninjured, injured, and deceased persons;
  6. Crowd control, specifying the name and location of each safety or security agency that agrees to provide assistance for the control of crowds in the event of an emergency on the airport; and
  7. The removal of disabled aircraft including to the extent practical the name, location and telephone numbers of agencies with aircraft removal responsibilities or capabilities.
- d. The plan required by this section must provide for--
    1. The marshalling, transportation, and care of ambulatory injured and uninjured accident survivors;
    2. The removal of disabled aircraft;
    3. Emergency alarm systems; and
    4. Coordination of airport and control tower functions relating to emergency actions.
  - e. The plan required by this section shall contain procedures for notifying the facilities, agencies, and personnel who have responsibilities under the plan of the location of an aircraft accident, the number of persons involved in that accident, or any other information necessary to carry out their responsibilities, as soon as that information is available.
  - f. The plan required by this section shall contain provisions, to the extent practicable, for the rescue of aircraft accident victims from significant bodies of water or marsh lands adjacent to the airport which are crossed by the approach and departure flight paths of air carriers. A body of water or marsh land is significant if the area exceeds one-quarter square mile and cannot be traversed by conventional land rescue vehicles. To the extent practicable, the plan shall provide for rescue vehicles with a combined capacity for handling the maximum number of persons that can be carried on board the largest air carrier aircraft that the airport reasonably can be expected to serve.
  - g. Each certificate holder shall--
    1. Coordinate its plan with law enforcement agencies, rescue and fire fighting agencies, medical personnel and organizations, the principal tenants at the airport, and all other persons who have responsibilities under the plan;
    2. To the extent practicable, provide for participation by all facilities, agencies, and personnel specified in paragraph (g)(1) of this section in the development of the plan;
    3. Ensure that all airport personnel having duties and responsibilities under the plan are familiar with their assignments and are properly trained;
    4. At least once every 12 months, review the plan with all of the parties with whom the plan is coordinated as specified in paragraph (g)(1) of this section, to ensure that all parties know their responsibilities and that all of the information in the plan is current; and

5. Hold a full-scale airport emergency plan exercise at least once every 3 years.
- h. FAA Advisory Circulars in the 150 Series contain standards and procedures for the development of an airport emergency plan which are acceptable to the Administrator.

Sec. 139.327 Self-inspection program.

- a. Each certificate holder shall inspect the airport to assure compliance with this subpart--
  1. Daily, except as otherwise required by the airport certification manual or airport certification specifications;
  2. When required by any unusual condition such as construction activities or meteorological conditions that may affect safe air carrier operations; and
  3. Immediately after an accident or incident.
- b. (b) Each certificate holder shall provide the following:
  1. Equipment for use in conducting safety inspections of the airport;
  2. Procedures, facilities, and equipment for reliable and rapid dissemination of information between airport personnel and its air carriers;
  3. Procedures to ensure that qualified inspection personnel perform the inspections; and
  4. A reporting system to ensure prompt correction of unsafe airport conditions noted during the inspection.
- c. Each certificate holder shall prepare and keep for at least 6 months, and make available for inspection by the Administrator on request, a record of each inspection prescribed by this section, showing the conditions found and all corrective actions taken.
- d. FAA Advisory Circulars in the 150 series contain standards and procedures for the conduct of airport self-inspections which are acceptable to the Administrator.

Sec. 139.329 Ground vehicles.

Each certificate holder shall--

- a. Limit access to movement areas and safety areas only to those ground vehicles necessary for airport operations;
- b. Establish and implement procedures for the safe and orderly access to, and operation on, the movement area and safety areas by ground vehicles, including provisions identifying the consequences of noncompliance with the procedures by an employee, tenant, or contractor;
- c. When an air traffic control tower is in operation, ensure that each ground vehicle operating on the movement area is controlled by one of the following:
  1. Two-way radio communications between each vehicle and the tower,

2. An escort vehicle with two-way radio communications with the tower to accompany any vehicle without a radio, or
3. Measures acceptable to the Administrator for controlling vehicles, such as signs, signals, or guards, when it is not operationally practical to have two-way radio communications with the vehicle or an escort vehicle;
- d. When an air traffic control tower is not in operation, provide adequate procedures to control ground vehicles on the movement area through prearranged signs or signals;
- e. Ensure that each employee, tenant, or contractor who operates a ground vehicle on any portion of the airport that has access to the movement area is familiar with the airport's procedures for the operation of ground vehicles and the consequences of noncompliance; and
- f. On request by the Administrator, make available for inspection any record of accidents or incidents on the movement areas involving air carrier aircraft and/or ground vehicles.

Sec. 139.331 Obstructions.

Each certificate holder shall ensure that each object in each area within its authority which exceeds any of the heights or penetrates the imaginary surfaces described in part 77 of this chapter is either removed, marked, or lighted. However, removal, marking, and lighting is not required if it is determined to be unnecessary by an FAA aeronautical study.

Sec. 139.335 Public protection.

- a. Each certificate holder shall provide--
  1. Safeguards acceptable to the Administrator to prevent inadvertent entry to the movement area by unauthorized persons or vehicles; and
  2. Reasonable protection of persons and property from aircraft blast.
- b. Fencing meeting the requirements of part 107 of this chapter in areas subject to that part is acceptable for meeting the requirements of paragraph (a)(1) of this section.

Sec. 139.337 Wildlife hazard management.

- a. Each certificate holder shall provide for the conduct of an ecological study, acceptable to the Administrator, when any of the following events occurs on or near the airport:
  1. An air carrier aircraft experiences a multiple bird strike or engine ingestion.
  2. An air carrier aircraft experiences a damaging collision with wildlife other than birds.

3. Wildlife of a size or in numbers capable of causing an event described in paragraph (a) (1) or (2) of this section is observed to have access to any airport flight pattern or movement area.
- b. The study required in paragraph (a) of this section shall contain at least the following:
  1. Analysis of the event which prompted the study.
  2. Identification of the species, numbers, locations, local movements, and daily and seasonal occurrences of wildlife observed.
  3. Identification and location of features on and near the airport that attract wildlife.
  4. Description of the wildlife hazard to air carrier operations.
- c. The study required by paragraph (a) of this section shall be submitted to the Administrator, who determines whether or not there is a need for a wildlife hazard management plan. In reaching this determination, the Administrator considers--
  1. The ecological study;
  2. The aeronautical activity at the airport;
  3. The views of the certificate holder;
  4. The views of the airport users; and
  5. Any other factors bearing on the matter of which the Administrator is aware.
- d. When the Administrator determines that a wildlife hazard management plan is needed, the certificate holder shall formulate and implement a plan using the ecological study as a basis. The plan shall--
  1. Be submitted to, and approved by, the Administrator prior to implementation; and
  2. Provide measures to alleviate or eliminate wildlife hazards to air carrier operations.
- e. The plan shall include at least the following:
  1. The persons who have authority and responsibility for implementing the plan.
  2. Priorities for needed habitat modification and changes in land use identified in the ecological study, with target dates for completion.
  3. Requirements for and, where applicable, copies of local, state, and Federal wildlife control permits.
  4. Identification of resources to be provided by the certificate holder for implementation of the plan.
  5. Procedures to be followed during air carrier operations, including at least--
    - i. Assignment of personnel responsibilities for implementing the procedures;
    - ii. Conduct of physical inspections of the movement area and other areas critical to wildlife hazard management sufficiently in advance of air carrier operations to allow time for wildlife controls to be effective;
    - iii. Wildlife control measures; and
    - iv. Communication between the wildlife control personnel and any air traffic control tower in operation at the airport.

6. Periodic evaluation and review of the wildlife hazard management plan for--
  - i. Effectiveness in dealing with the wildlife hazard; and
  - ii. Indications that the existence of the wildlife hazard, as previously described in the ecological study, should be reevaluated.
7. A training program to provide airport personnel with the knowledge and skills needed to carry out the wildlife hazard management plan required by paragraph (d) of this section.
- f. Notwithstanding the other requirements of this section, each certificate holder shall take immediate measures to alleviate wildlife hazards whenever they are detected.
- g. FAA Advisory Circulars in the 150 series contain standards and procedures for wildlife hazard management at airports which are acceptable to the Administrator.

Sec. 139.339 Airport condition reporting.

- a. Each certificate holder shall provide for the collection and dissemination of airport condition information to air carriers.
- b. In complying with paragraph (a) of this section, the certificate holder shall utilize the NOTAM system and, as appropriate, other systems and procedures acceptable to the Administrator.
- c. In complying with paragraph (a) of this section, the certificate holder shall provide information on the following airport conditions which may affect the safe operations of air carriers:
  1. Construction or maintenance activity on movement areas, safety areas, or loading ramps and parking areas.
  2. Surface irregularities on movement areas or loading ramps and parking areas.
  3. Snow, ice, slush, or water on the movement area or loading ramps and parking areas.
  4. Snow piled or drifted on or near movement areas contrary to Sec. 139.313.
  5. Objects on the movement area or safety areas contrary to Sec. 139.309.
  6. Malfunction of any lighting system required by Sec. 139.311.
  7. Unresolved wildlife hazards as identified in accordance with Sec. 139.337.
  8. Nonavailability of any rescue and firefighting capability required in Secs. 139.317 and 139.319.
  9. Any other condition as specified in the airport certification manual or airport certification specifications, or which may otherwise adversely affect the safe operations of air carriers.
- d. FAA Advisory Circulars in the 150 series contain standards and procedures for using the NOTAM system for dissemination of airport information which are acceptable to the Administrator.

Sec. 139.341 Identifying, marking, and reporting construction and other unserviceable areas.

- a. Each certificate holder shall--
  - 1. Mark and, if appropriate, light in a manner acceptable to the Administrator--
    - i. Each construction area and unserviceable area which is on or adjacent to any movement area or any other area of the airport on which air carrier aircraft may be operated;
    - ii. Each item of construction equipment and each construction roadway, which may affect the safe movement of aircraft on the airport; and
    - iii. Any area adjacent to a navaid that, if traversed, could cause derogation of the signal or the failure of the navaid, and
  - 2. Provide procedures, such as a review of all appropriate utility plans prior to construction, for avoiding damage to existing utilities, cables, wires, conduits, pipelines, or other underground facilities.

FAA Advisory Circulars in the 150 series contain standards and procedures for identifying and marking construction areas which are acceptable to the Administrator.